PROGRESS REPORT

For

AUTOMATIC STEREO CORRELATOR

SC 1305

"Construction of Breadboard System of an Automatic Stereo Correlator and Evaluation of the Performance Capabilities of such a System."

Period Covered:	January 1965 - February 1965
Date:	16 February 1965
Job No.:	SC 1305
Document No.:	OD-115

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This is the sixth monthly progress report.

TASK OBJECTIVE

To manufacture a breadboard and to conduct sufficient tests to determine the performance capabilities inherent in a system of automatic stereo correlation as described in the 552 MSC proposal.

CURRENT STATUS OF WORK

Electronic

1) Modification of the main channel amplifier to accomodate large signal levels has been completed.

2) Modification of the intensity channel preamplifier to accomodate large signal levels has commenced.

3) The servo amplifiers have been connected to their respective motors and tested.

4) The limit switches for the X-Y drive have been installed and adjusted.

5) An interconnection drawing has been made.

Opto-Mechanical

1) The X-Y drive table and the servoed scan head have been integrated.

2) Rework to the θ axis should be completed by the 16th of February. See "Problem Areas Encountered" for details.

3) The zoom mechanism has been assembled and tested.

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PROBLEM AREAS ENCOUNTERED

1) It was determined that the use of a fiber optic cable without image enhancement would be unsatisfactory. Rework was required to avoid the use of a fiber optic cable. It was necessary to combine the opto-mechanical assemblies that were to be coupled by the fiber optic cable into a single assembly and to provide different means for angular correction.

2) It proved impractical to continue electrical tests during the entire period of rework and mechanical integration.

DOCUMENTATION OF VERBAL COMMITMENTS AND/OR AGREEMENTS

None have been made.

PROJECTED WORK FOR NEXT PERIOD

Completion of the Project, consisting of:

1) Integrate servo functions (X, Y, θ, M, and intensity) one at a time and evaluate interactions.

2) Check servo performance and adjust gain, damping and phasing.

3) Evaluate total system performance and write final report.

4) Update drawings for record purposes.